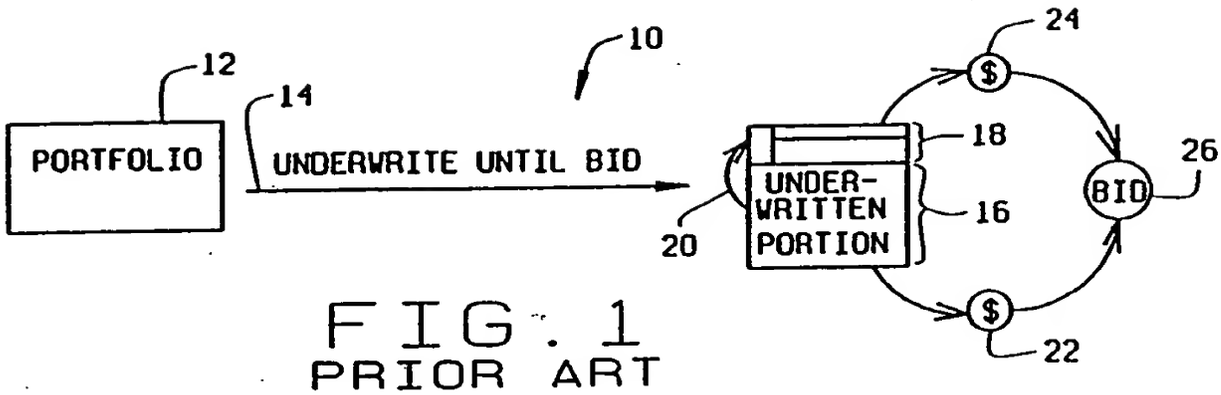


FIG. 1
PRIOR ART

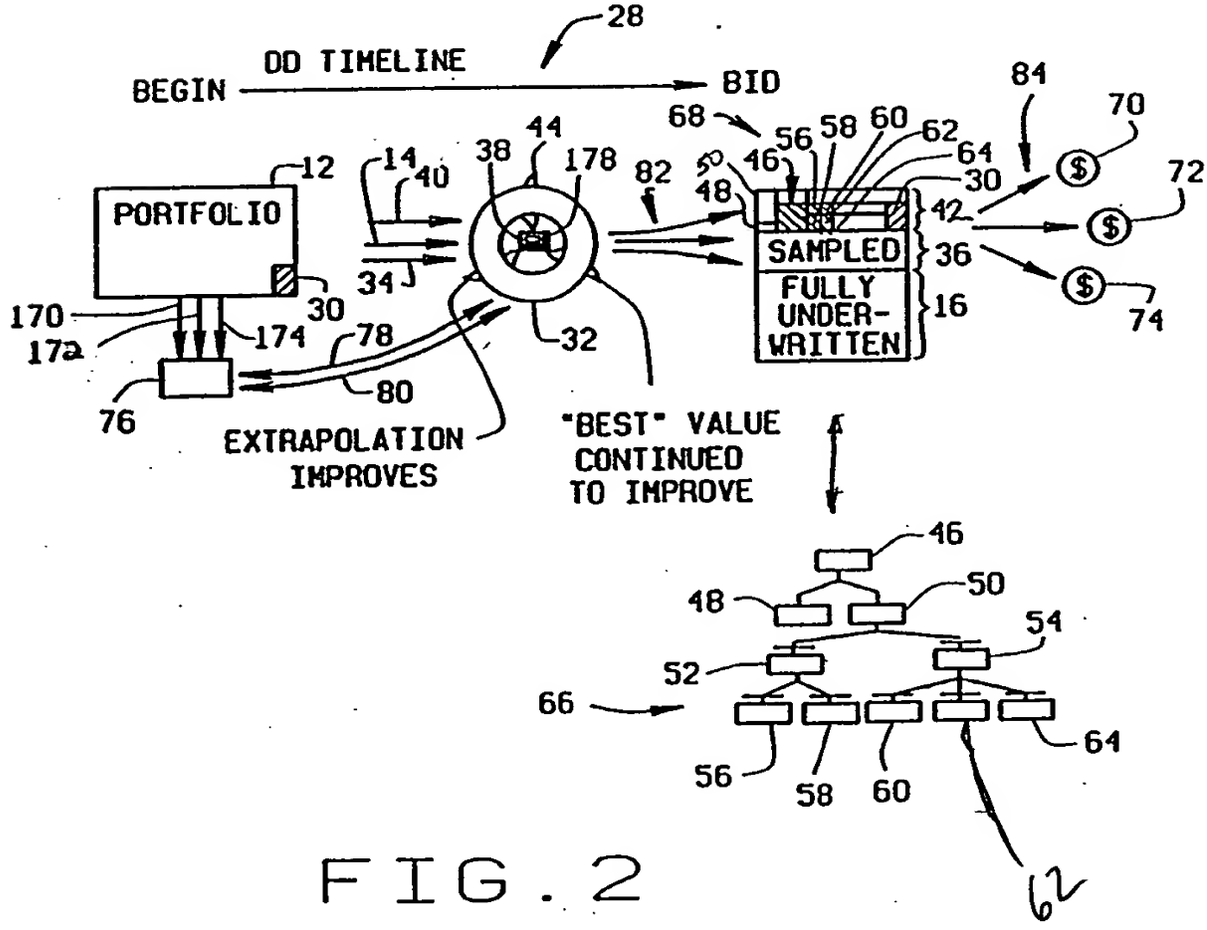
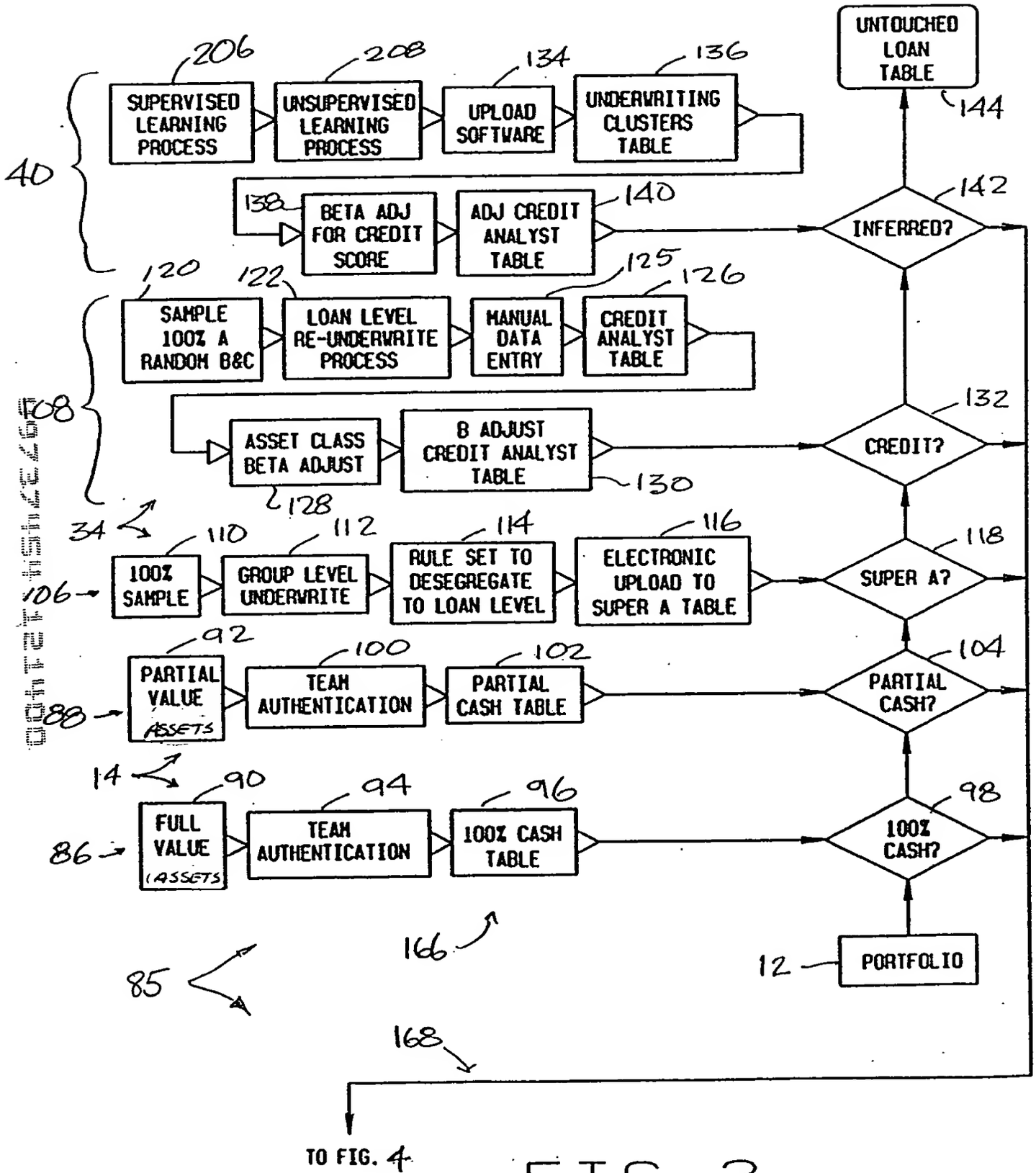


FIG. 2


UNTOUCHED LOAN TABLE
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206
208
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UNSUPERVISED LEARNING PROCESS
UPLOAD SOFTWARE
UNDERWRITING CLUSTERS TABLE
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ADJ CREDIT ANALYST TABLE
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142
INFERRED?
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125
126
SAMPLE 100% A RANDOM B&C
LOAN LEVEL RE-UNDERWRITE PROCESS
MANUAL DATA ENTRY
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108
ASSET CLASS BETA ADJUST
B ADJUST CREDIT ANALYST TABLE
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100% SAMPLE
GROUP LEVEL UNDERWRITE
RULE SET TO DESEGREGATE TO LOAN LEVEL
ELECTRONIC UPLOAD TO SUPER A TABLE
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100
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104
PARTIAL VALUE ASSETS
TEAM AUTHENTICATION
PARTIAL CASH TABLE
PARTIAL CASH?
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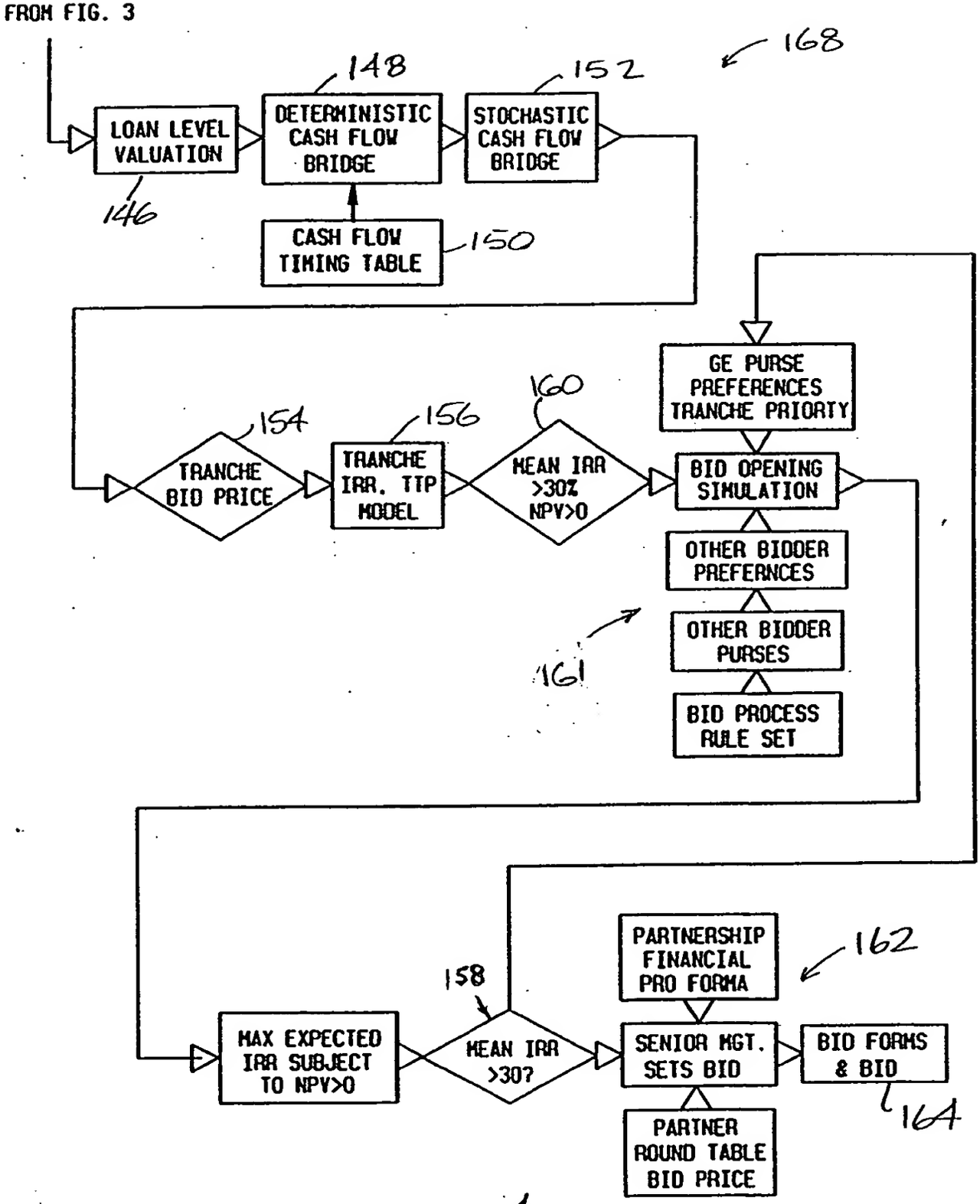
90
94
96
98
FULL VALUE (ASSETS
TEAM AUTHENTICATION
100% CASH TABLE
100% CASH?
86
166
85
12
PORTFOLIO
168
TO FIG. 4

FIG. 3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LOAN LEVEL VALUATION
DETERMINISTIC CASH FLOW BRIDGE
STOCHASTIC CASH FLOW BRIDGE
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CASH FLOW TIMING TABLE
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GE PURSE PREFERENCES TRANCHE PRIORTY
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TRANCHE BID PRICE
TRANCHE IRR. TTP MODEL
MEAN IRR >30% NPV>0
BID OPENING SIMULATION
OTHER BIDDER PREFERNCES
OTHER BIDDER PURSES
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BID PROCESS RULE SET
PARTNERSHIP FINANCIAL PRO FORMA
162
158
MAX EXPECTED IRR SUBJECT TO NPV>0
MEAN IRR >30?
SENIOR MGT. SETS BID
BID FORMS & BID
164
PARTNER ROUND TABLE BID PRICE

FIG. 4

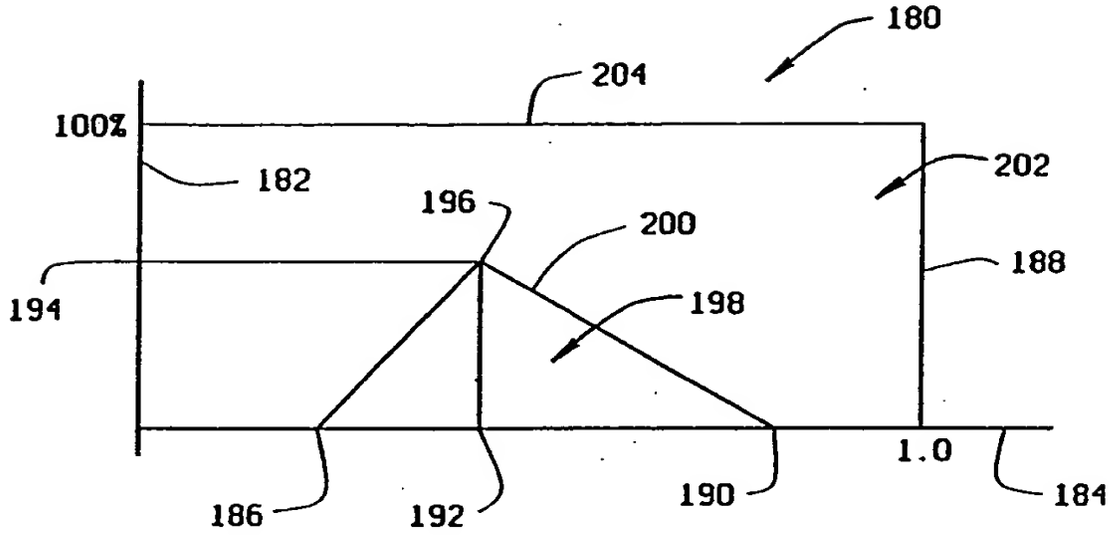


FIG. 5

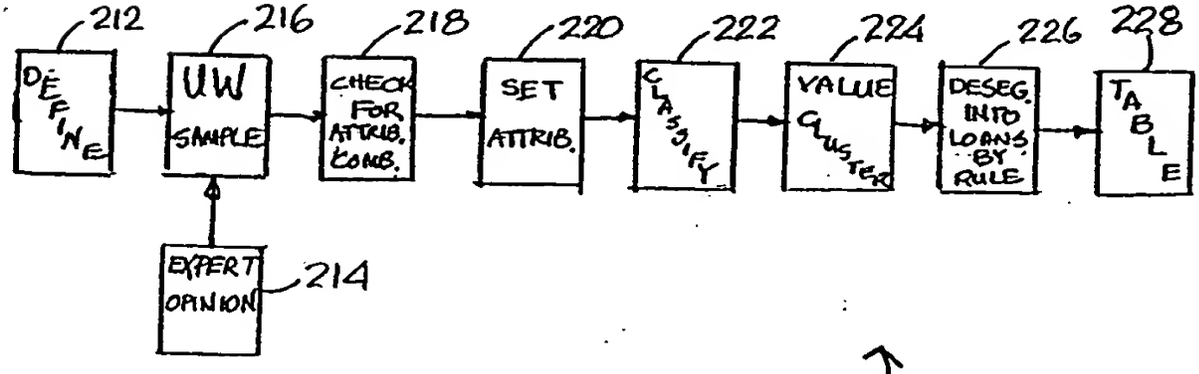
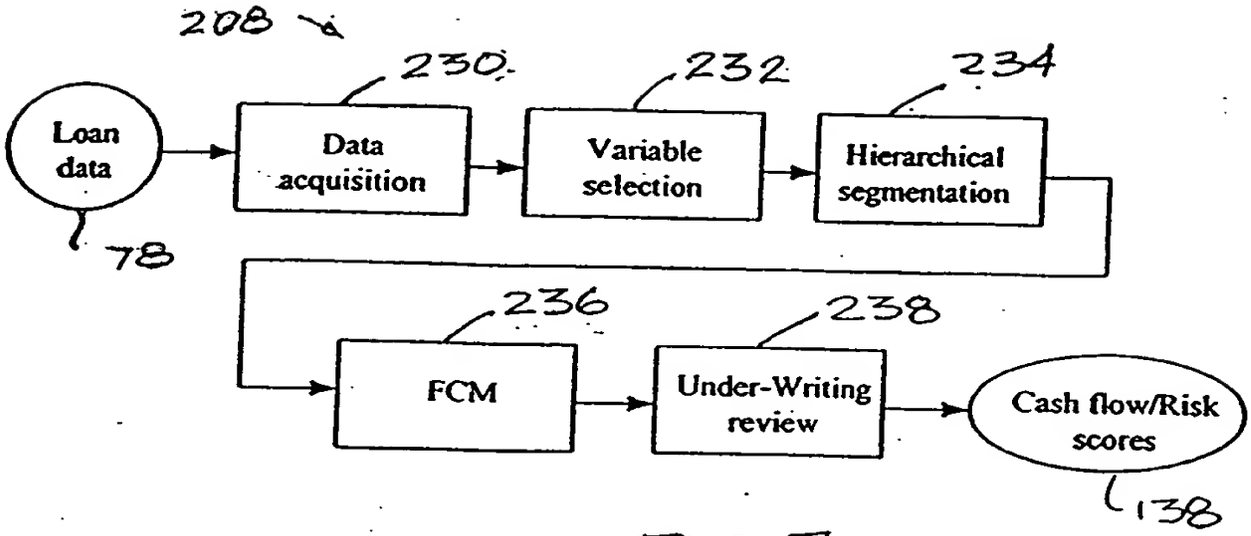


FIG. 6

210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Variable selection
Hierarchical segmentation
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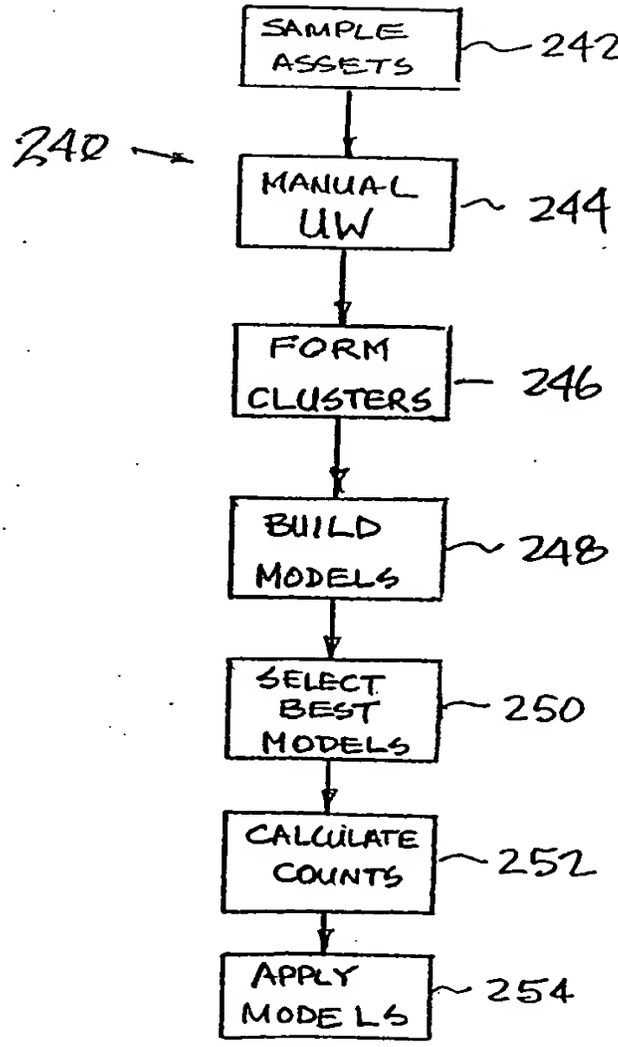
238
FCM
Under-Writing review
Cash flow/Risk scores
138

FIG. 7


240
SAMPLE ASSETS
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244
FORM CLUSTERS
246
BUILD MODELS
248
SELECT BEST MODELS
250
CALCULATE COUNTS
252
APPLY MODELS
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FIG. 8

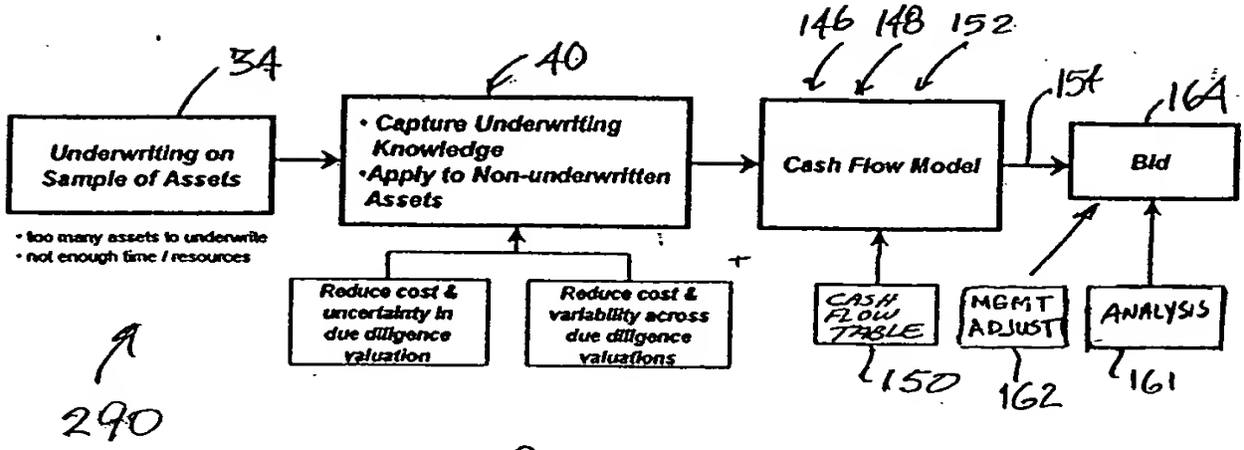
34
40
146
148
152
154
164
Underwriting on Sample of Assets
• too many assets to underwrite
• not enough time / resources
• Capture Underwriting Knowledge
•Apply to Non-underwritten Assets
Cash Flow Model
Bid
Reduce cost & uncertainty in due diligence valuation
Reduce cost & variability across due diligence valuations
CASH FLOW TABLE
MGMT ADJUST
ANALYSIS
150
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FIG. 9

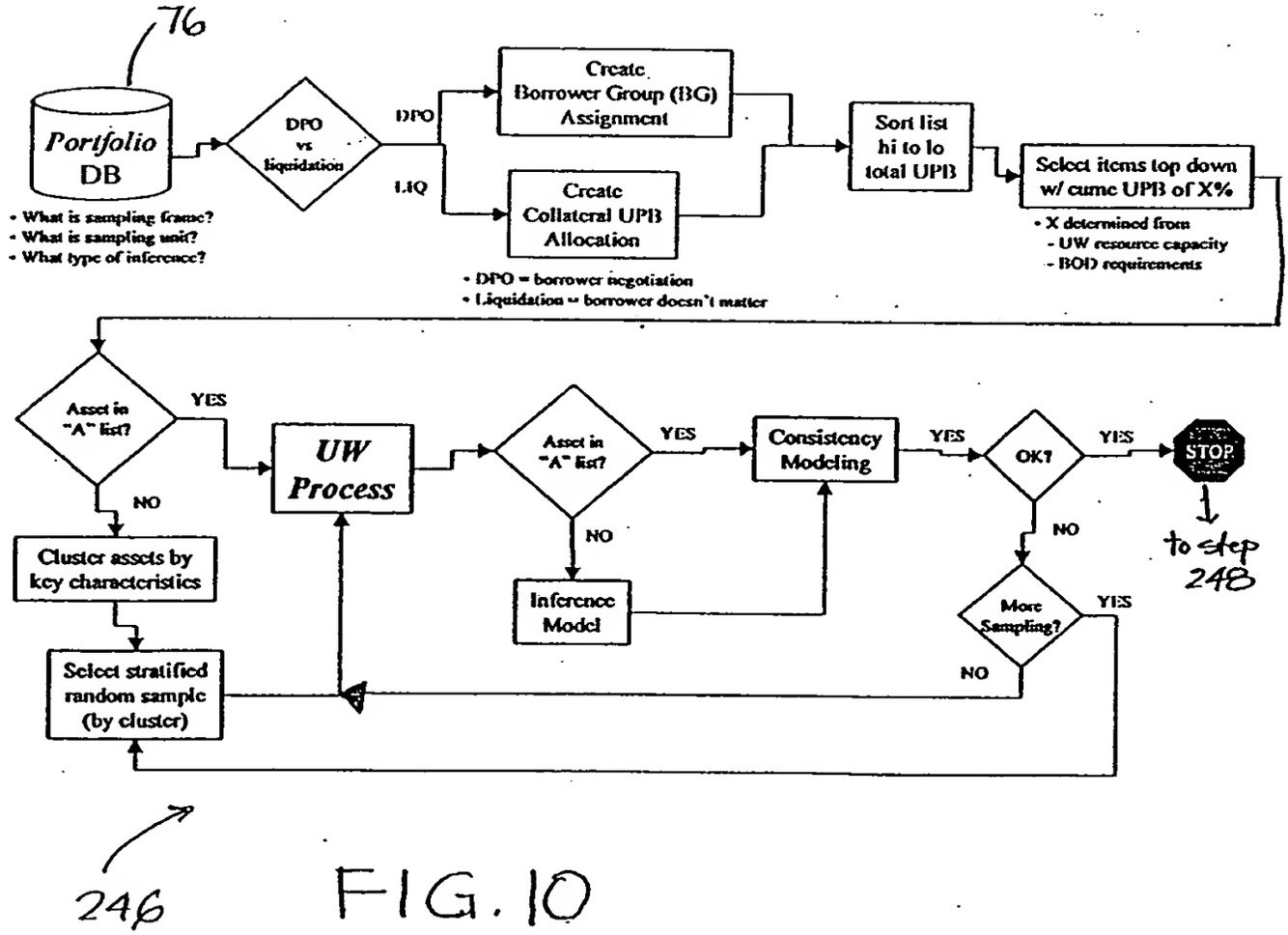

76
Portfolio DB
• What is sampling frame?
• What is sampling unit?
• What type of inference?
DPO vs liquidation
DPO
LIQ
Create Borrower Group (BG) Assignment
Create Collateral UPB Allocation
• DPO = borrower negotiation
• Liquidation = borrower doesn't matter
Sort list hi to lo total UPB
Select items top down w/ cume UPB of X%
• X determined from
- UW resource capacity
- BOD requirements
Asset in "A" list?
YES
NO
UW Process
Cluster assets by key characteristics
Select stratified random sample (by cluster)
Asset in "A" list?
YES
NO
Inference Model
Consistency Modeling
YES
OK?
YES
NO
STOP
to step 248
More Sampling?
YES
NO
246

FIG. 10

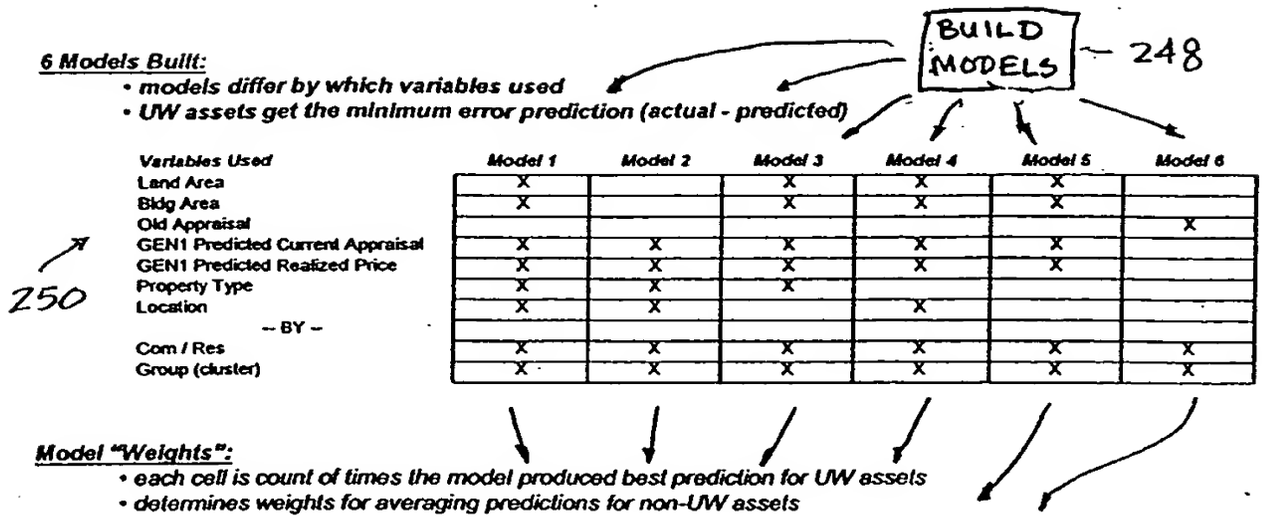


FIG. 11

Variable	Category/Value Range	Encoding Scheme
Loan secured	{Yes, No}	Yes = 1 else 0
Loan type	{Revolving, Non-revolving}	Revolving = 1 else 0
Last payment	[0, 250 MM]	0 if Last payment = 0 else 1
Notice of default sent		Prior to Jun 97 equals 1 else 0
Original maturity date		Prior to Jun 97 equals 1 else 0
Syndicated Loan	{Yes, No}	Yes = 1 else 0
Loan guaranteed	{Yes, No, NAV}	Yes = 1 else 0
Collection score	[0, 1]	
Lien position	{-1, 0, 1}	1 if Lien position = 1 else 0
Current unpaid balance/Original balance	[0, 2.9]	Normalized to [0, 1]
Last payment to Interest/Last payment	[0, 1]	

80

FIG. 12

138

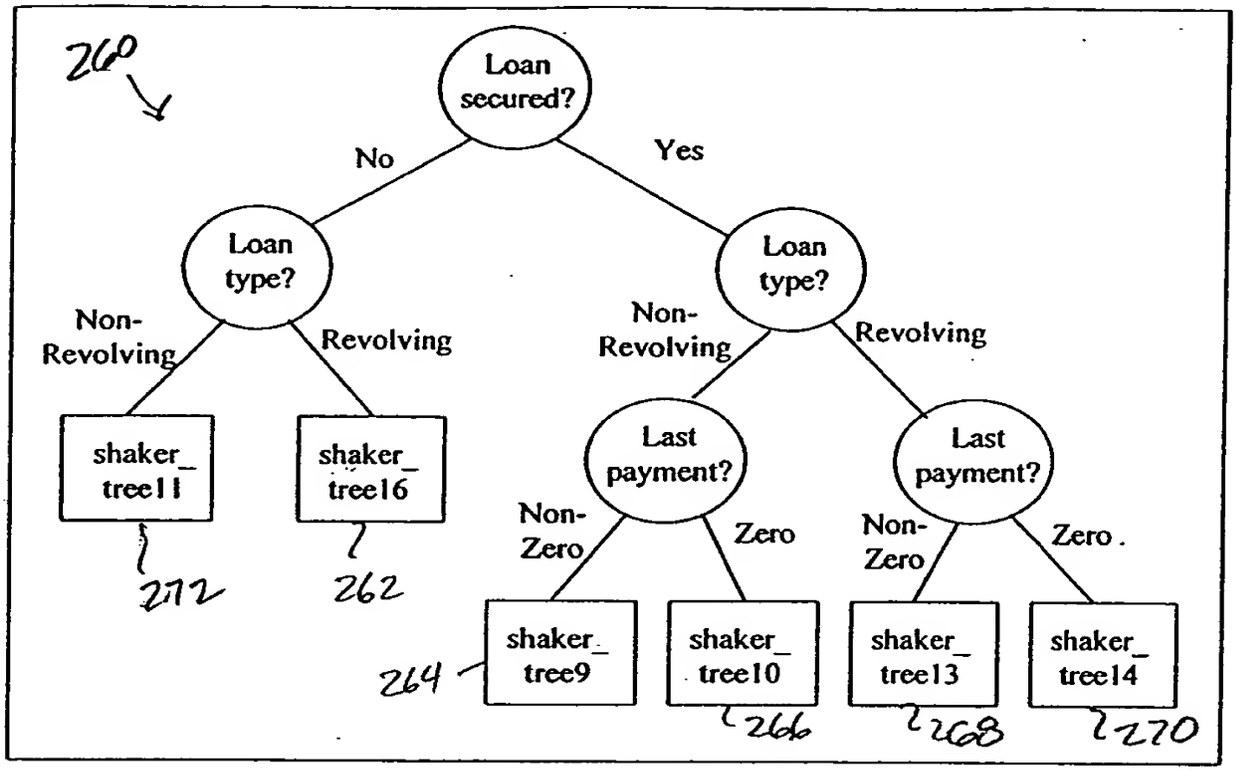
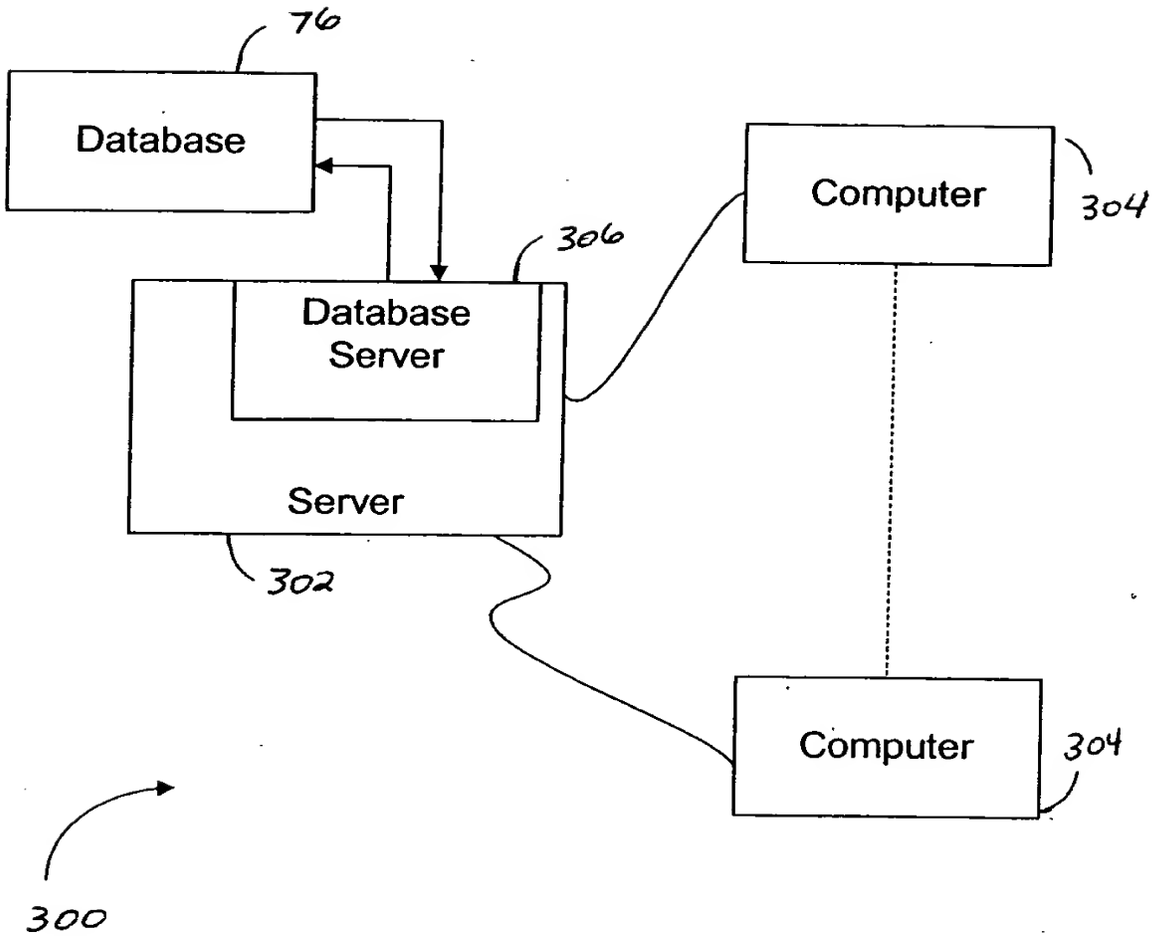

260
Loan secured?
No
Yes
Loan type?
Loan type?
Non-Revolving
Revolving
Non-Revolving
Revolving
shaker_ tree11
shaker_ tree16
Last payment?
Last payment?
Non-Zero
Zero
Non-Zero
Zero
shaker_ tree9
shaker_ tree10
shaker_ tree13
shaker_ tree14
272
262
264
266
268
270

FIG. 13

Figure 9


76
Database
Computer
304
306
Database
Server
Server
302
Computer
304
300